



# **Graduate Research Manual**

**2005**

**School of Computing  
University of Tasmania**





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*Arthur Sale asserts the moral right to be identified  
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# INTRODUCTION

## General

Please take the time to read this manual right through. Although you won't remember everything in it, you may remember the existence of some advice or data that you will find useful in the future.

The School aims to provide an exemplary standard of research higher degree experience. It operates as an integrated cross-campus school, so some of the resources you will need are based on one of the campuses, some of the resources are replicated on both campuses, others are seamlessly networked, or somewhere in between these extremes. Bear this in mind when reading this manual.

In order to save repetition and time in amending subsequent editions, names, phone numbers, rooms and email addresses are generally not specified in the text except for important instances at their first occurrence. For further information on any member of the School, please check the School website

<http://www.comp.utas.edu.au/app/staff.jsp>. For other members of the University check the contact section of the University website <http://www.utas.edu.au/contacts.html>.

## Who is this Manual for?

**This manual is addressed to Graduate Research candidates.** You are a Graduate Research candidate if you are enrolled in a PhD, or a Master degree by research. Candidates enrolled in a Master degree by coursework, the Master of Information Technology, a Graduate Diploma, or an Honours year, are not Graduate Research candidates.

This manual should be read in conjunction with the University's *Graduate Research Resource Book*. You should have received a free copy of this publication when you enrolled. If you did not, you should obtain a current copy from the Graduate Research Unit in the Administration Building on the Hobart Campus, or from Student Administration in Launceston. It is also available on the Web for download or browsing at <http://www.admin.utas.edu.au/HANDBOOKS/UTASHANDBOOKS/GR/01.html>.

The Graduate Research Resource Book contains a comprehensive statement of official university policies and procedures with respect to postgraduate candidature and outlines the responsibilities of supervisors and candidates. It also contains important information about progress, variations in your enrolment, preparation of the thesis for examination, and guidelines for proper scientific conduct.

This manual is designed to inform you about additional policies and procedures in the School that are relevant to GR candidature. It also includes information about how to obtain access to School and University resources. It is not a substitute for the University *Graduate Research Resource Book*, though it attempts to summarize some of the policies in that handbook and make them more accessible. Nothing in this manual can over-ride a requirement of the *Graduate Research Resource Book*.

## Where to go to for advice about your candidature

### Supervisor

Your primary supervisor is your main source of information and will be able to direct you to the appropriate person when you have questions about your candidature or your research.

### Graduate Research Coordinator

The Graduate Research Coordinator (GRC) is **Professor Arthur Sale**, room 463 in the Centenary Building in Hobart, phone x1792 or 04 1947 1331, email [Arthur.Sale@utas.edu.au](mailto:Arthur.Sale@utas.edu.au). You should consult the GR Coordinator if you have any questions or concerns about supervision or your supervisor, access to resources, or wish to pursue your research as part of your employment, or as part of a larger research project. The GRC's job is to keep track of all the candidates and supervisors in the School, to be aware of any changes in GR candidature and requirements, and to process all forms and University requirements. The GRC will also advise on procedures for ethics approval for projects, if required, as well as intellectual property issues.

### Head of School

Professor Young Ju Choi (offices in both Hobart and Launceston) has final responsibility for the management of the school, funding for various aspects of your candidature and other matters. The Head will often have to countersign important enrolment and review forms. You would normally consult the Head of School with your supervisor, or with your supervisor's knowledge. In unusual cases in which you have not been able to obtain a satisfactory outcome with your supervisor and/or the GR Coordinator, you may discuss the issues with the Head of School.

### Dean of Graduate Research

The Dean of Graduate Research is Professor Carey Denholm [Carey.Denholm@utas.edu.au](mailto:Carey.Denholm@utas.edu.au). The Dean is available for consultation regarding matters that cannot be resolved in the School, involve the Head of School, or which have wider application than the

School. Contact the Dean's office x7261 for an appointment to see the Dean.

### **The Graduate Research Unit**

For all official business concerning University regulations, requirements and scholarships, advice or information, see one of the staff in the *Graduate Research Unit* situated in Student Administration in Hobart, see if your question is answered on their website <http://www.research.utas.edu.au/gr/> or email Bronwyn.Peters (responsible for Candidature Services) at [Bronwyn.Peters@utas.edu.au](mailto:Bronwyn.Peters@utas.edu.au).

The arrangements for in-person consultation by Launceston-based GR candidates are flexible. Contact Bronwyn Peters by email or phone for an appointment (x7495).

All forms that GR candidates are likely to need are available on the GR Unit website [http://www.research.utas.edu.au/gr/candidature\\_for\\_ms.htm](http://www.research.utas.edu.au/gr/candidature_for_ms.htm) or the Research Services website <http://www.research.utas.edu.au/>. All forms should be discussed with your supervisor and the GR Coordinator, and given to your local School Admin Assistant in the first instance. The Admin Assistant will ensure that the forms are completed correctly, obtain the appropriate Head of School signatures, make a School copy, and forward them on.

## **YOUR WORKING ENVIRONMENT**

### **Useful staff information**

#### **Admin Assistant on your campus**

The School Admin Assistants (Julia Mollison in Launceston and Zita Mitchell/Andrea Kingston in Hobart) are your contacts for stationery, room bookings, booking vehicles where necessary, ordering consumables, travel payments, casual employment and payment, photocopying, petty cash reimbursement, faxes, long-distance calls, etc. Discuss your requests with your supervisor first.

#### **Computing & networking**

Computing and networking facilities on both campuses are managed by Tony Gray (based in Hobart). The Help Desks on both campuses are available for minor questions. Access to computers and advice about hardware and software can be obtained from Christian McGee in Launceston, or in Hobart from David Herbert.

#### **Academic staff in the School**

A current list of staff and their areas of interest are available on the School website (<http://www.comp.utas.edu.au/>). Note that Professor

Christopher Lueg will take up an appointment as Professor in Hobart from mid 2005.

### **Minimum Infrastructure Standards**

The University has adopted a set of Minimum Infrastructure Standards for GR candidates, attached as Appendix 1. The School aims to meet and exceed all these standards. If you believe that we do not meet them in any respect, please tell the GR Coordinator. The School attempts to support research to the fullest possible extent while mindful of budgetary and space constraints.

### **Office Space**

All full-time GR candidates are provided with a desk, ergonomic chair and desk computer, access to a telephone for campus calls (dial the 4-digit extension) and local calls (dial 0 and then the number for an external call), and access to a filing cabinet, in a shared space.

Please note that on commencing candidature you may be assigned an older desk computer to get you started, but we will assess your personal needs and provide for them within a few months.

### **Keys**

Anytime access to the buildings and laboratories is provided by proximity card, and access to your shared office is provided by a key. All proximity cards and keys can be obtained from the local School Admin Assistant. You will need to check with your supervisor regarding access to any special spaces not covered by these. Keys must be returned when your GR candidature ceases.

Unlock prox cards for labs and the seminar rooms are available on short term loan from the Admin Assistant. Be sure to relock the rooms after use and return the card.

### **Budget and Expenditure**

Your research proposal will include a budget item for specialized costs and this budget should be discussed with your supervisor prior to presentation of your proposal. If funds are allocated to your project, you must organize all expenditure through your supervisor. In no cases will you be reimbursed for expenses incurred prior to supervisor approval and compliance with School procedures. *All expenses must be approved prior to being incurred.*

### **Paper Resources**

All GR candidates have access to photocopying and printing. Each GR candidate is given a private ID for the photocopier on their campus. In Hobart you will have key access to the staff facilities room in

which the photocopier and staff printer are located; in Launceston the resources room is open 08:30 to 17:00. All photocopying and printing that is not directly related to your research (such as private copying) is your own responsibility and should not be done on the School copiers or printers. In the case of excessive use of photocopying or printing, you will be asked to justify your use and possibly to reduce it or the privilege withdrawn.

Envelopes are available in the staff facilities room in Hobart; in Launceston see your School Admin Assistant. A limited amount of other stationery, such as preprinted letterhead paper for official correspondence, is also available from your School Admin Assistant. However, candidates are expected to provide their own general stationery supplies. If you need to use heavy-duty staplers, 3-hole punches, guillotines, sticky tape, packaging, laminators, colour printers, or any other special secretarial service, please ask your Admin Assistant.

Graduate Research candidates are not allowed to enter the School Admin Assistant offices on either campus; requests for supplies or services should be made over the counter.

Overhead transparencies are available from your School Admin Assistant for research or conference presentations. *No other transparencies should be used in the photocopiers.* If you use another brand and melt it onto the rollers you will be liable for the repair costs.

## Security

External doors are unlocked only between the hours of 08:00 and 18:00 weekdays. You can enter the buildings outside these hours using your proximity card. Do not wedge external doors open as this defeats the security measures, and will register an alarm at central security. All windows should be secured before leaving. GR candidates should carry their ID Card at all times on campus and should produce it if asked by security staff.

In addition, GR candidates are warned not to leave valuables in either locked or unlocked offices, as petty thieves may operate on the campuses.

University Security may be contacted on Extension **7600** (Hobart) or **3336** (Launceston). *Please report any suspected security breach to Security as soon as possible, even if it concerns other buildings on campus.*

## Snail Mail

Incoming mail is normally delivered to the School twice a day at approximately 09:00 and 15:30 (Hobart) and 10:30 and 15:00 (Launceston). Incoming mail is sorted into shared GR pigeonholes in rooms 460 (Hobart) and V143 (Launceston). Keep any internal mail re-usable envelopes for later

use. When advising others how to address external mail (via Australia Post) to you, please use the relevant address format:

Mr/Ms Sam Smith  
School of Computing  
University of Tasmania  
Private Bag 100  
HOBART TAS 7001

Mr/Ms Sam Smith  
School of Computing  
University of Tasmania  
Locked Bag 1359  
LAUNCESTON TAS 7250

Outgoing mail is picked up at the same times. Outgoing mail must be placed in the yellow bag in the Admin Assistant's room for the next pickup. Personal mail can be placed in these bags, provided it has stamps already attached.

If you are sending mail within the University to any campus (internal mail), place it in a re-usable envelope (preferably an already used one), cross out all previous addresses, and address it in the next available box as in the following example which assumes that Dr Jones is in the School of Computing. Box numbers for other University schools and administrative sections are available on the web at

<http://www.utas.edu.au/contacts.html>.

DR SANDY JONES  
Box 100  
HOBART

DR SANDY JONES  
Box 359  
LAUNCESTON

## Faxes

Faxes can be sent and received on the School's fax machines 03 6226 1824 (Hobart) or 03 6324 3368 (Launceston). You should get your supervisor's approval prior to approaching your School Admin Assistant to send any faxes.

## Tea rooms

Rooms 457 (Hobart) and V131 (Launceston) are combined staff and postgraduate tea rooms, and you are encouraged to use them at any time. They provide the opportunity to meet the staff at tea times and lunch and to discuss a range of topics.

Depending on the campus, these rooms may contain a microwave oven, sink, fridge, urn or instant hot water, cutlery, crockery and tea towels. Basic supplies such as tea, instant coffee, and milk are supplied by the School. If you put anything in the fridge, put your name and the date on it, and trash it past its use-by date (otherwise others have to do so when it's rotten).

Please do not remove cutlery, tea towels or crockery from the tearoom – they belong to the School and are for the use of all staff and GR



candidates. Please don't use anyone else's food or drink without their permission.

## **Library**

Please direct simple enquiries to the Librarian in the relevant library, usually the Launceston Campus Library or the Science & Technology Library (SciTech) in Hobart. You can get specialist library assistance (especially in doing citation and literature searches) from the Librarians with responsibility for the School, currently **Ian Bollard** in Launceston and **Sandy von Allmen** in the SciTech Library in Hobart. These librarians would be delighted to be able to help you with your library or Internet research.

The Library, under the auspices of the GR Unit, regularly runs courses on accessing library materials, electronic journals, using EndNote, etc. These courses are well worth attending. As places are limited, it is a good idea to book as soon as you hear about them.

Library photocopy cards are obtainable from your School Admin Assistant, should you need to copy a journal article.

## **Faults and emergencies**

Routine maintenance issues (eg failed lights, power outages, telephone problems, overflowing or blocked toilets) and urgent problems or emergencies (eg fire, smoke, faulty external doors) should be reported as soon as possible during business hours to the School Secretaries. Urgent problems noticed after hours should be reported to University Security (phone **7600** Hobart, **3336** Launceston).

# **BEING A GRADUATE RESEARCH CANDIDATE**

## **Research Training generally**

GR candidates are undertaking training in high level research. This training provides the skills required to assume a job as an academic or researcher in the public or private sector. The form of training for a research degree resembles an apprenticeship, where the candidate works closely with a supervisor, and learns various aspects of the research process through the conduct of an original research project designed in collaboration with the supervisor. Additional skills are acquired through some coursework, attendance at seminars and conferences, and even through tutoring undergraduate seminars and laboratories.

GR candidates are regarded as junior colleagues who make an important contribution to

the School, and in many ways treated the same as staff. They are expected to work independently, but to participate actively in the activities of the School. There is an expectation that their research will be presented publicly at School seminars, at academic conferences, and that they will endeavour to publish their research in academic journals.

## **Keeping Records**

One of the most important things for you to do right from the start of your research training is to keep good records. You will be very grateful when two, three or four years later you come to write up your thesis. 'When did I think of X?' you struggle to remember, or 'What was that interesting idea that I eventually rejected?'

Buy yourself a large notebook, and record in it every day that you work on your research. If you find some terrific result, record it. If you make a little bit of progress, record it. If you meet with your supervisor, record that too, with the outcomes. Jot down ideas and suggestions that others give to you. If you want to, you can do this in an online database, but the paper notebook still seems to be the most convenient form of record-keeping for this purpose.

Organize your papers in your filing cabinet or folders so you can find those papers that you copied. Keep archival backups of any software that you write, especially interim versions and dead-ends. Keep the outputs of the programs.

Keeping records of your references is a vital part of research. There is only one real way to do this: use a referencing tool such as *EndNote*. Serious research cannot be envisaged today without using EndNote or something like it, so book yourself into a course in using it, and then *use it!* The University has an institutional license for EndNote which allows every GR candidate to use the package. Ask your School IT support person to install it.

EndNote not only keeps your references tidy so they don't get lost, but it can also format them into the style that a particular journal wants, and it can produce cut-and-paste output for your papers.

## **Plagiarism and Scientific Misconduct**

The University does not tolerate plagiarism nor scientific misconduct in research. Any instances are subject to the University's *Ordinance of Discipline*, and may lead to the candidate's candidature being cancelled. *These offences are regarded very seriously.*

You will be familiar with plagiarism from your undergraduate degree: it comprises the copying and presentation of another person's work



with intent to deceive, passing it off as your own, or without adequate attribution.

The broader concept of scientific misconduct covers all activities which involve misrepresentation, for example the falsifying or invention of experimental results, manufacturing research outcomes known to be false or unsupported, wilfully distorting the views of others, and misrepresentation of responsibility for research. In this respect it is important to acknowledge contributions made by other persons to your research (even if through unpublished communications), and to respect the conventions for multi-authored papers. A good research notebook will assist you remember where ideas came from.

You may find it useful to read the *Code of Conduct in Research* (see references).

### **Student Database and email**

The University keeps a record of your academic record/progress and your personal data, such as contact address, after hours phone, etc. It is important that you update your personal information if you change your address or your name. In this way you will be sure to receive any information that is sent out such as changes to rules, notice of functions, etc. The online form for you to update your personal details is available at <http://student.admin.utas.edu.au/coursesenrolment/g/r/Index.html>.

You should regularly check your University email since information such as changes to rules, procedures, notification of seminars, etc is often advised by email.

### **Will a taught unit help?**

You can apply to the GR Coordinator to take any undergraduate, Honours or postgraduate units that might facilitate your research, in your own School or another, subject to approval by the Dean of Graduate Research. With your application, you should provide a justification from the supervisor that the particular unit would be of use to you. The GR Coordinator will oversee and approve any such applications.

The person running the course has to agree that s/he has space in the class for you. The attendance may be done in 'audit mode', whereby the candidate attends the course, but does not sit the examination and may not have the assignments marked. The precise arrangements depend on the lecturer. An official note will be placed on your record that you can attend the unit, but you will receive no credit towards the PhD or Master degree.

In some circumstances a supervisor may require an GR candidate to attend a course to expand their knowledge, or to acquire knowledge or skills deemed essential to the research project.

### **Time commitments**

Compared with undergraduate studies and postgraduate training by coursework, there are few scheduled classes that GR candidates attend. The major exception is the School seminar series (see below). This means that you must structure and manage your own time. *This is a very important part of the GR experience.* It is a good idea to discuss time management with your supervisor or to attend a course on time management if one is offered.

*The School has the expectation that full-time GR candidates will be present at the University on most workdays if enrolled on a full-time basis. Contact with the supervisor at least twice a month is also expected.*

### **Part-time candidature**

*Effective part-time candidature entails a commitment of about 20 hours per week. Part-time candidates must make at least monthly contact with their supervisor. All part-time candidates should be in the School at least once a week on average and attend seminars on a regular basis.* Regular contact with other candidates is encouraged. In most aspects other than time, there is no difference between full-time and part-time candidature. The School will support an application from an intending part-time candidate only if it is clear that the person is able to make an adequate commitment of time and effort to postgraduate research.

### **Suspension of candidature**

Circumstances may require a candidate to discontinue candidature for a period of time, typically no more than one year. The candidate should discuss suspension with the GR Coordinator in the first instance, and if the decision is to suspend then submit the application. Forms are available on the GR Unit web site. The School will normally support applications for suspension if supported by the supervisor and the GR Coordinator. Note that candidates must be enrolled (not suspended) at the time of thesis submission.

### **Attending seminars**

On most Thursday afternoons during semesters (and often outside semesters) the School schedules seminars from 14:10 – 15:00. No tutorials or lectures are scheduled at this time to enable all staff and GR candidates to attend. The seminars are usually held in rooms 473 (H) and V137 (L) and are video- and data-linked. As a GR candidate you will be required to give some of these seminars from time to time related to your research progress.

*The School of Computing views its seminars as an important educational resource for*

*GR candidates and expects all GR candidates, part-time and full-time, to attend the seminars on a regular basis.*

The purpose of the seminars is to provide an opportunity for staff and students to learn about each others' work, to hear about the research work of outside experts, and for candidates to receive constructive feedback about their research designs and their interpretation of results.

### **Giving seminars**

All GR candidates are expected to give at least three seminars in the course of their candidature, as part of their research training.

- The first will be a short presentation of the *research proposal*, with an outline of what the candidate hopes to achieve (see research proposal information later). Your supervisor will assist in the presentation.
- The second is a progress talk given during the seminar series within the first year in the case of full-time Masters candidates or within the first two years in the case of full-time PhD candidates.
- The third is an extensive presentation of the results of your research. This presentation will be made in the seminar series towards the end of your candidature.

You may also present data and theories, including practising conference presentations prior to the conference, in the seminar series as often as you wish and can be scheduled. Consult the GR Coordinator to schedule a seminar.

### **Publishing research**

GR candidates are encouraged to seek publication of their research as this will disseminate the findings of the research to the professional community as well as adding strength to their curriculum vitae. This applies especially to the findings contained in the thesis, but also to significant outcomes during the candidature. You may also include published papers as appendices to your thesis, which adds credibility to it.

Timeliness, who does the writing, and the list of authors to be listed are important factors to be considered before commencing writing a draft paper. For a publication that is substantially based on the candidate's dissertation or thesis, the candidate is usually listed as principal (first) author. The candidate's supervisor will usually be listed as second author to such a publication. If there is more than one supervisor then they should all be listed if they contributed to the research. If the candidate does not submit a manuscript for publication in a reasonable period of time after completion of the research, then the supervisor may publish the

research and assume primary authorship; in this case the candidate must be listed as a second author.

Similar guidelines apply to papers written during the candidature, though if this arises early in the candidature there may be a case for the supervisor to be listed as first author if s/he made the major contribution. In any case, before you commence writing you and your supervisor should discuss:

- the names of the authors and the order of appearance of these names,
- the distribution of workload in writing up the paper, and
- the time frame in which the work will get done.

One reasonable outcome would be that you, wishing to be the first author, undertake to write the first draft of the paper within say four months. Your supervisor, being the second author, will undertake to guide you through further revisions of the paper for submission. You may include, as additional authors, people who have made significant contributions to your research work. There are many acceptable arrangements and if in doubt discuss the situation with the GR Coordinator. Disputes may be referred to the Head of School.

### **Intellectual Property**

You will generate Intellectual Property (IP) in the course of your research. This IP includes

- copyright subsisting in anything you write or design and publish (this includes computer programs),
- inventions (new machines or processes) which are capable of being patented,
- or in various other cases plant patent rights, microchip copyrights, reverse engineering rights, trade secrets, trade- and service-marks, and other less applicable forms of IP.

The most common of these in computing is *copyright*: the *right* of a person to control who may *copy* some or all of the work. Copyright law provides that copyright in a work belongs to the author in general. However, where the author is employed by a corporation and the works are reasonably considered to be part of fulfilling their employment contract, the copyright belongs to the employer. The copyright holder can assign all or part of their copyright to another person, or can grant (possibly restricted) licences to copy.

Translating this into the university context: anything a computing academic writes in or about computing belongs to the University; anything you write belongs to you (as you are not employed by the University to do research). However, the University policy is to not exercise its rights over academics where they are engaged in normal scientific publication. In your case it is also

considered automatic that you grant the University a free licence to copy your thesis or part thereof for interested persons when it is deposited in the Library, though there is provision to vary this in unusual circumstances (eg sensitive data). However, this differential ownership situation gives rise to complications where the work has some commercial potential. The complications are twofold:

- Any negotiations involving commercialization will involve at least three legal entities: the University, the candidate, and the potential commercializer. Since the candidate is unlikely to have funds to be legally represented, s/he is at a considerable disadvantage.
- Situations can arise where a third party is involved in the research where the candidate is pressured by the wishes of the third party to produce a product, and the priority of the candidate and the University to complete the degree.

As a consequence of these potential complications, if your research is likely to result in commercializable IP (in other words if the University may be able to make money out of it) or if a third party is involved in sponsoring your research, you will be required to assign the IP to the University, to match the academic staff conditions of service. The assignment deed provides for the University to negotiate any commercialization. You are required to inform the University through your GR Coordinator if you consider that your work might be commercializable.

If the University decides not to proceed with commercialization, you will be free to exploit it yourself. If it does exploit the research, you can expect to receive a share of the income on the same basis as academic staff. In this case, of course, the University carries the costs and effort of commercialization and charges them to the project. The University is normally only interested in major profits of say \$10 000 or more, since small ones are not worth the costs they would incur.

If you do not want to assign IP to the University in these circumstances, then the University may suggest that you change your research topic to one which does not involve commercializable potential.

Similar arrangements apply if an outside organization (third party) is involved in sponsoring your research since they may also want to assert a claim on your IP. The University will seek to negotiate a three-way legal agreement that protects your right to produce a thesis and gain the degree. The details of the case will need to be examined by the Research & Development Office, and they will draw up an agreement. Your GR Coordinator will help you.

See also the *Intellectual Property Policy* <http://www.admin.utas.edu.au/HANDBOOKS/UTASHANDBOOKS/RULES/CSUP.html> which also contains a copy of the agreement form.

Please note that few PhD studies lead to commercializable IP unless this is planned through sponsorship. For the University to want to commercialize your research is even more rare. The provisions here cover the exceptions when a major breakthrough is made and the University would be regarded in law as delinquent if it had not secured its rights.

## **Research involving an outside organization**

As noted above some candidates conduct their research as part of a larger project involving an organization outside the University, or sponsored by such an organization. If this is the case, you must obtain a statement in writing which sets out which part of the research, data or IP belongs to you, what requirements the organization sets for sharing the data and IP, and what will happen in the event the organization (or project) closes, even if there are no commercialization issues. Examples include research involving government data or applications.

Again, the GR Coordinator is responsible for resolving these issues with Research Services for you, once he is alerted to their existence. It is important to consult your supervisor and the GR Coordinator. Do not enter into any personal agreements. The University will make the Agreement, not you, thereby protecting you from the legal consequences, providing you with legal cover, and protecting your rights to produce a thesis.

## **Travel to Conferences**

Subject to finances, the School supports travel to conferences by GR candidates if they are presenting a paper at that conference. Australasian conferences are more likely to be funded than conferences further away. If you intend to submit a paper to a conference with the intention to attend, discuss this with your supervisor before submission. Funds granted will be subject to School and University guidelines.

## **Personal services and skills**

Be aware that you can approach the *Student Welfare Service* for confidential advice and counselling regarding any personal problems you might encounter, including stress management and family pressure.

If you encounter sexual harassment or sexual/racial discrimination, you should approach an *equal opportunity contact person* for advice on

how to proceed. In some cases the situation may be referred to the University Ombudsman.

You may also think that your generic skills need improvement. Note that the University provides courses in learning skills and in language improvement.

## YOUR SUPERVISORS

### Who are they?

One *principal supervisor* from the School of Computing will be appointed on your initial enrolment. At least one other *co-supervisor* or *associate supervisor* will be appointed. There is provision for additional co-supervisors and associate or research supervisors to be appointed as necessary.

The principal supervisor assumes primary responsibility for your supervision, and is required to approve and countersign important events in your candidature. A co-supervisor is normally appointed where the supervision involves another School or where the co-supervisor is expected to play a major role in your supervision; they and associate supervisors have the role of assisting you and the principal supervisor. The term *research supervisor* is largely used for people outside the University who may have a role in your supervision.

The appointment of two supervisors allows for cases where one of the supervisors goes on leave, is ill, or resigns from the University.

### Contact

It is your responsibility to maintain regular contact with your supervisors, and not *vice-versa*. Frequency of contact will vary in accordance with the research setting and your stage in the candidature, but the expectation is that you and the supervisor will meet in person *at least* twice a month (once a month for part-time candidates).

The role of the supervisor is to assist you to form a viable research project, and to provide guidance, support, and feedback at all stages in the project and in preparation of your thesis. You should make arrangements for research facilities, equipment, space, and other facilities through your supervisor who can identify the appropriate administrative staff members to assist you.

At the end of each research supervision meeting, you and your supervisor should review the session, agree what action has to be taken by each party before the next meeting and agree on the date and time for the next meeting (if it is not at a regular agreed time). Record these decisions in your research notebook.

### Change of supervisor or topic

Occasionally, candidates may wish to change supervision arrangements or alter their research topic. In other cases there may be a good reason to add a new co-supervisor, or to otherwise change the supervision arrangements. Any of these changes require completion of a form which can be obtained from the Secretary of the GR Unit or the GR website.

Academic staff may be absent from the University for extended periods of time (for example on study leave, long service leave). Although a supervisor may be able to maintain contact with you via email during such periods, the supervisor is required to make alternative supervision arrangements for GR candidates before going on leave. Usually another member of academic staff in the School, such as an associate supervisor, will temporarily assume this role. Be aware of any planned leave of your principal supervisor and discuss alternative supervision with him/her well in advance of the absence.

### Using your supervisor

Your supervisors are resources for you in undertaking the research training that is a major part of a GR program. Do not hesitate to approach them for help.

In any case a good deal of detailed help can be expected automatically from your supervisor during the early stages of your research. This is often in relation to the selection of a topic and the design and implementation of your research program. Your supervisor will also assist you with critical discussion and suggested readings, and planning your program of research.

As your candidature progresses, you will become increasingly independent from your supervisor in the conduct of your research. This is a positive sign, which indicates your increasing maturity as a researcher. However, it does not mean that there should be less contact between you and your supervisor. Rather, you will find that your supervisor's advice will relate to the disappointments you are likely to encounter, avenues you should explore in case of criticism from others, and assistance in publications and thesis preparation. Increasingly, you will be treated as a colleague.

### Supervision breakdown

Rarely, it happens that supervision arrangements break down irretrievably. Perhaps the candidate and the supervisor can no longer agree on the direction of research, or the candidate feels that the supervisor no longer cares about him/her. If this ever happens to you (and it is rare), please contact



your GR Coordinator or Head of School when the situation appears to you to be deteriorating or to require some external intervention.

### **Code of Conduct in Supervision**

This section is partly a distillation of the rules and procedures found in the official *Code of Conduct in Supervision*, interpreted in light of the practices of the School of Computing. A copy of the Code (current when this Manual was printed) is reproduced in Appendix 2; an up-to-date version can be obtained from <http://www.admin.utas.edu.au/HANDBOOKS/UTASHANDBOOKS/RULES/CSUP.html>.

Note that the Code does not refer to GR Coordinators, however the GR Coordinator acts as the authorized delegate of the Head of the School, and assists the Head to carry out the specified functions.

## **YOUR RESEARCH**

### **Length of study**

The expectation is that candidates enrolled in a Master degree will submit a thesis for examination within two years of full-time candidature, and that a candidate enrolled in a PhD will submit a thesis for examination within four years of full-time research. The minimum times are one and two years respectively. *It is recommended that you aim at 18 months for a Master degree and three years for a PhD*, so as to give yourself some slack.

Part-time candidates are expected to submit a thesis for examination within an equivalent period; in other words double the above periods. If you end up with a mixed part-time and full-time candidature, discuss the targets with your supervisor.

### **Your Research Proposal**

You are required to develop a research proposal with your supervisor's assistance and make a proposal presentation within three months of full-time candidature (or the equivalent period of part-time candidature: six months). One copy of the proposal should be submitted to the GR Coordinator at least one week before the date of the proposal presentation.

The proposal itself should be a maximum of six A4 pages (10 point font). The proposal should include a brief literature review, a rationale for the proposed research, methodological details of the proposed research, a section outlining ethical considerations if any, a time line, a budget and references. The presentation will be scheduled in the seminar series as soon as possible after receipt of the research proposal.

Following presentation of the proposal, the Head of School and the GR Coordinator will assess each proposal. The proposed research will be assessed on the following criteria:

- The theoretical basis of the research
- The link between the proposed research activity and the theory
- Adequate specification and soundness of the major features of the research including: design, hypothesis, and methodology
- The feasibility of the research being completed within the time limit, including such things as adequate access to facilities, scope, etc.
- The required infrastructure such as special equipment or funds is either available in the School, or can be acquired within budget.

If there are no problems with your proposed research, you will receive a letter from the Head of School confirming that the research program has been approved. If any clarification is needed, you and your supervisor may be asked to attend a meeting at which clarification will be sought.

### **Ethics approval and safety hazards**

Some research requires *ethics approval* to be allowed to proceed. Ethics standards are set by the community to provide for socially acceptable research to be carried out, but research that involves socially unacceptable activity to be prevented. These standards are enforced by an ethics approval process provided by various Ethics Committees that incorporates research experts, ethics experts and community representatives. Ethics approval is required for:

- research involving human experimentation and participation, hence some research on GUIs, wearables, and anything involving a questionnaire or survey
- research involving experimentation on vertebrate animals (for example mammals, birds, reptiles, fin fish) and cephalopods such as squid, octopus
- research where Australian law has a constraining role, for example certain kinds of genetic research involving foetal cells

The situation is complex, so discuss it with your supervisor if you have any concerns, and s/he will approach the GR Coordinator for advice on applying to the relevant committees. Note that research involving these factors *cannot* proceed until it has ethics approval from the relevant Tasmanian Ethics Committee, which may take 2-3 months.

If your research may involve hazardous substances such as radioactive sources, ionizing radiation, contact with human blood samples, etc, or hazardous activities such as SCUBA diving, mountain climbing, etc, seek advice from your

supervisor as soon as possible. The relevant University Safety Officer will need to approve the activity so that you are covered by University insurance.

### **Progress in your study**

Overall progress of GR candidates is monitored by the School GR Coordinator and by the Board of Graduate Research.

Annually, the Board of Graduate Research requires a review process to be undertaken which assesses the progress of each candidate. The candidate and the supervisors are separately required to assess the progress of the candidate by completing an online form. The GR Coordinator is then required to conduct a face-to-face interview with each candidate and their supervisors, reviewing the comments made by each. (In the School of Computing some of these interviews may be conducted using video-conferencing.) Following this interview an online form is completed with one of the following ratings:

- A** no impediment to progress is happening or is foreseen
- B** progress has been slow because of specific factors which have now been resolved
- C** progress has been slow because of specific factors but these factors have not yet been satisfactorily resolved
- D** there has been no progress

In the event of unsatisfactory progress, steps will be taken to try to get your candidature back on track. If you fail to participate in the annual review, or if there is consistently no progress despite intervention, your candidature may be cancelled.

### **Complaints**

If you have any complaints, direct them in the first instance to either your supervisor or the GR Coordinator, depending on the type of complaint. If you are not satisfied, or the complaint is more serious, the increasing order of escalation should be the Head of School, the Dean of Graduate Research, and the University Ombudsman.

### **Procedures for Submission of Thesis**

If possible attend a course on Thesis Writing before this stage is reached. General procedures for submission of your thesis can be found in the procedures of the *Graduate Research Resource*

*Book* produced by the Graduate Research Unit. A useful reference is given later.

Write your thesis in context of the most recent literature, as well as the literature you reviewed during the course of candidature. Check the guidelines for presentation and style and check past theses. It is a good idea to schedule your final presentation before the thesis is finalized, so you can incorporate any good ideas.

Eight weeks prior to estimated submission date and after consultation with your supervisor, lodge your *Intention to Submit Thesis and Abstract* to the GR Unit through the Head of School. This triggers off the appointment of examiners by the Board of Graduate Studies by Research.

The final version of your thesis should be given in the first instance to your principal supervisor with a completed *Candidate Submission of Thesis Form* (see the GR website). Your principal supervisor will then complete the *Supervisor Statement for submission of Research Higher Degrees*, and send the thesis and forms to the Admin Assistant.

Wait. The examination process may take several months and depends on how prompt the examiners are. You will be advised when the thesis is accepted, whether the examiners want minor revisions, or if it should be resubmitted after substantial reworking. In the meantime try to produce some publications from the thesis.

### **Some references**

- *Code of Conduct in Supervision*. Board of Graduate Research, University of Tasmania.  
<http://www.admin.utas.edu.au/HANDBOOKS/UTASHANDBOOKS/RULES/CSUP.html>
- *Code of Conduct in Research*, University of Tasmania (NH&MRC, AV-CC).  
<http://www.admin.utas.edu.au/HANDBOOKS/ARCHIVE/UTASHBK97/pdf2/pol.pdf>
- *PhD Supervision: A Guide for Students & Supervisors*. Christian R, Davies K, de Chazal J, Krebs E, & Melbourne B (1997). Canberra: CPN Publications.
- *Doing Postgraduate Research in Australia*. Stevens K & Asmar C (1999). Victoria: Melbourne University Press.
- *Writing a Thesis, Substance and Style*. Van Wagenen & Keith R (1991). Prentice-Hall, Sydney.

## APPENDIX 1 – MINIMUM INFRASTRUCTURE STANDARDS

*The following set of minimum infrastructure standards for Graduate Research candidates were approved by University Council on 15 November 2002.*

1. Accommodation appropriate to the discipline; accommodation of no less than four square meters in floor space which is secure, ventilated, heated, lit to ASA standards, and located proximate to toilets and other amenities, with a desk space of no less than 0.5m<sup>2</sup>. There should be a clear statement about the space provided for part-time students.
2. Twenty-four hour building access and own keys
3. Laboratory access where appropriate. Individual bench space and access to relevant equipment for those in laboratory-based disciplines; this does not imply permanent bench space in central facilities such as the Central Science Laboratory.
4. An ergonomically sound chair as specified by the University of Tasmania's Occupational Health and Safety Policy
5. Bookshelves
6. Lockable filing cabinet, or appropriate space therein
7. Full library services including access to inter-library loans and document delivery
8. Shared access to an internal phone extension and a reasonable level of free access to a telephone for research related local calls. Permission required for STD/ISD calls and calls to mobile phones for research related purposes
9. Controlled fax access
10. Shared mail box and mail out facilities
11. Access to operational and regularly serviced photocopier
12. Twenty-four hour access to tearoom facilities
13. Twenty-four hour access to washroom facilities
14. Access to shared dedicated postgraduate computing facilities including: computer/work station, networked printing, e-mail facilities and an address, Internet and Intranet access, IT support, and commonly used research related software where appropriate
15. Access to school stationery, such as School letterhead when necessary
16. School induction program
17. Provision of written documents outlining School policies regarding the conduct of the postgraduate research program
18. The research proposal completed by all candidates to include a detailed budget that the School considers appropriate to carry out the research project. This budget should be regarded as indicative and subject to annual change in the light of experience. The intention is to ensure a level of financial support appropriate to the project being undertaken. It is not intended to be an automatic entitlement to spend up to the budgeted amount irrespective of the needs of the project. Research related expenses might include: fieldwork, laboratory consumables, additional library services, off-site photocopying, thesis preparation or any other expense that may be substantiated as a legitimate cost.
19. Remote/distance candidates provided with infrastructure appropriate to their needs.



## APPENDIX 2 – CODE OF CONDUCT IN SUPERVISION

*Authorized by Academic Senate, downloaded from Web 11 Mar 2003. However, note that since this approval terminology has changed and you should make the following substitutions while reading this document:*

- *Research Higher Degree = Graduate Research*
- *Research Higher Degree Candidate = Graduate Research Candidate*
- *Research Higher Degrees Committee = Board of Graduate Research*
- *Academic Dean of Graduate Studies by Research = Dean of Graduate Research*

### 1. Introduction

- 1.1 Supervision of candidates for higher degrees by research is a complex teaching task. Like all teaching tasks, supervision can be approached in a variety of ways depending on the personalities of the supervisor and the candidate, and on the nature of the discipline. Nevertheless there are common principles and responsibilities that apply to good supervision practice.
- 1.2 The University policy of non-discriminatory practice applies to all facets of supervision of higher degrees by research.
- 1.3 Higher degrees by research are administered by the Research Higher Degrees Committee. In accordance with the [Rules of Higher Degrees by Research](#) and Procedures of Higher Degrees by Research, the Committee approves admission to candidature, determines the conditions of candidature, approves the research project, appoints a supervisor, monitors the progress of candidature, manages the examination process and determines whether or not the candidate has satisfied the requirements for the award of the degree.
- 1.4 The Rules of Higher Degrees by Research state that the degree is awarded for a substantial original contribution as judged by disinterested experts. The role of the supervisor is to guide the candidate through the process of making this contribution. Supervision involves providing advice and instruction, assistance, a sounding board for ideas and plans, and review and criticism of written material – all in a way which is consistent with the original contribution being made by the candidate rather than the supervisor.

Supervision is a shared experience in which both the supervisor and the candidate have an intellectual investment. Supervisors must have the theoretical and practical expertise to offer the candidate proper supervision, an interest in the research project, and adequate time for supervision.

Supervision also involves concern and a measure of pastoral care for the candidate. In the best cases, the relationship between the supervisor and the candidate develops during the candidature from one of teacher and student at the outset to one between research colleagues at the end.

- 1.5 This Code of Conduct in Supervision describes the standard of conduct and performance required of all those involved in supervision of research higher degree candidates. Heads of schools, who are responsible for the conduct of research and research training within their schools, are responsible for the observance of this Code in their schools.

### 2. Responsibilities of the Research Higher Degrees Committee

- 2.1 The Research Higher Degrees Committee is responsible for admission to candidature for a higher degree by research and for approval of the research project. The Committee must seek the assurance by the head of school of the suitability of the candidate and the research project, and the availability of adequate resources and facilities for the project.
- 2.2 The Committee approves supervision arrangements on the advice of the head of school. The Committee must seek assurance that those nominated can provide proper supervision by virtue of their qualifications and experience, their research interests and their personal qualities.

The Committee must also seek assurance that those involved in the supervision together have sufficient time for supervision. The Committee must be satisfied that continuity in supervision can be maintained for the duration of candidature regardless of staff leave and other absences from the University. When inviting research or associate supervisors to act, the Committee must seek their agreement to conform to the Rules of Higher Degrees by Research and Procedures of Higher Degrees by Research, this Code of Conduct in Supervision, and the Code of Conduct in Research.

- 2.3 The Committee is responsible for encouraging good supervision practices, for monitoring the supervision of candidates across the University, and for taking action as appropriate to ensure that high quality supervision is achieved in each case.
- 2.4 The Committee must report annually to the Academic Senate on the quality of research higher degree supervision in the University.

### **3. Responsibilities of the Academic Dean of Graduate Studies by Research**

- 3.1 The Academic Dean of Graduate Studies by Research is delegated by the Research Higher Degrees Committee to act on its behalf between meetings.
- 3.2 The Academic Dean has particular responsibilities under the University complaints procedures. If a research higher degree candidate has a complaint which he or she has been unable to resolve informally, the candidate can approach the Academic Dean formally for assistance. The Academic Dean must then initiate the process for resolution in accordance with the University complaints procedures.

## **4. Responsibilities of Heads of School**

### **General**

- 4.1 The head of school is responsible for the management of all research higher degree candidates within the school and for monitoring supervision arrangements for those candidates. He or she must be thoroughly familiar with the Rules of Higher Degrees by Research and Procedures of Higher Degrees by Research, the Code of Conduct in Research, and this Code of Conduct in Supervision.
- 4.2 The head of school is responsible for the observance of this Code within the school, and must ensure that appropriate mechanisms exist to facilitate high quality supervision. A head of school may choose to appoint a school postgraduate committee or coordinator to assist and advise on supervision, progress and pastoral care of candidates.
- 4.3 The head of school must consult with members of the school as appropriate and as required by the Rules of Higher Degrees by Research and Procedures of Higher Degrees by Research before providing advice to the Research Higher Degrees Committee.

### ***Prospective candidates***

- 4.4 The head of school must ensure that prospective candidates are advised on all matters relevant to research higher degree candidature in the school, including the range of research expertise of academic staff, and the availability of resources and facilities. The candidates should also be advised of limitations to resources available for the research programs. The head of school should clearly articulate school expectations, practices and standards with respect to supervised research, including the need for the candidate's commitment to intensive work and the time-frame for completion of the degree. Conditions of scholarships and awards should be discussed.
- 4.5 Before recommending admission to candidature, the head of school must be satisfied that each prospective candidate is adequately prepared for candidature, and should identify any additional requirements such as coursework to be required of the candidate. These requirements should be discussed with the prospective candidate.

- 4.6 When recommending a research project in an application for candidature, the head of school must certify that it is appropriate for the school in terms of the resources and facilities required, the expertise available for supervision, and the suitability of the project for the degree sought.
- 4.7 In the application for candidature, the head of school must nominate a member of the staff of the University to be the supervisor. A research or associate supervisor may also be recommended to provide additional expertise or assistance with supervision. A supervisor should not normally supervise more than the equivalent of seven full-time research higher degree candidates. When recommending supervision arrangements, the head of school must be satisfied that those nominated can provide proper supervision by virtue of their qualifications and experience, their research interests and their personal qualities.
- 4.8 The head of school must ensure that supervisors are fully aware of the Rules of Higher Degrees by Research and Procedures of Higher Degrees by Research, the Code of Conduct in Supervision and the Code of Conduct in Research.
- 4.9 The situation where the head of school is also the supervisor is a special case because the independent oversight normally provided by the head is not available. In such a case, a supervisory consultant shall be appointed by the Research Higher Degrees Committee on the nomination of the head. The consultant will normally be the chair of the school's postgraduate committee, a senior member of the head's school who is an experienced supervisor or the head of another school.

The consultant must review and complete the candidate's annual report form in place of the head of school, and be available for approach by the candidate as necessary. The Research Higher Degrees Committee may seek advice from consultants in the course of monitoring supervision.

### ***New candidates***

- 4.10 The head of school must provide appropriate induction for new candidates. This should include a guide to the nature of research in the particular field, a description of the facilities available in the school and elsewhere in the University (including library services, computing facilities, Research Higher Degrees, and student support services), and the school's program of seminars.

The nature and process of supervised research in the discipline should be discussed, and the role of the supervisor explained. There should be written information on the characteristic stages towards completion of theses in the field, and typical examples of time-frames.

The responsibilities and rights of the candidate should be discussed, and the head of school should ensure that each candidate has access to a copy of the Graduate Research Resource Book.

The head of school should advise each candidate of relevant administrative structures and committees of the University and their roles in relation to the candidate.

The head of school should ensure that each candidate is provided with written guidelines concerning ethics in research, as appropriate to the discipline.

The head of school should advise candidates on general guidelines regarding authorship of publications within the discipline, and ensure that a copy of the Code of Conduct in Research is available to each candidate.

The head of school should ensure that each new candidate is informed of the complaints procedures, under which he or she may make representation if significant difficulties arise.

The head of school should outline opportunities for a candidate to participate in marking, tutoring or demonstrating in the school, and the remuneration which would result. Any restrictions which apply to the hours or the nature of such paid employment should be discussed, together with the advantages and disadvantages of taking part.

- 4.11 The head of school must ensure that each candidate is provided with written guidelines concerning safety procedures appropriate to the discipline.
- 4.12 The head of school should be familiar with any special conditions which apply to a candidate, such as restrictions on disclosure of research outcomes associated with sponsorship of the candidature or the research project. The head must ensure that the Secretary of the Research Higher Degrees Committee and the supervisor are fully informed of special conditions, and must ensure that the conditions are met.

### ***During candidature***

- 4.13 It is the responsibility of the head of school to ensure that adequate space and facilities are available for the candidate and the project. Appropriate and equitable access to facilities and resources must be provided for all candidates, whether full time or part time.
- 4.14 The head of school should encourage candidates to become an integral part of the school and the discipline, and to participate in research seminars and develop their skills at presenting their work.
- 4.15 The head of school must ensure that proper supervision can be maintained until the end of candidature. If a supervisor takes study leave or is absent from the school for more than three months, formal arrangements for alternative supervision must be made; associate supervision may be an effective way of meeting these contingencies. Any proposed changes in supervision arrangements should be discussed with the candidate. The new supervision arrangements must be acceptable to the candidate, the school and the Research Higher Degrees Committee.
- 4.16 The head of school, in consultation with consultants and supervisors, should monitor progress of all candidates in the school. It is the responsibility of the head of school to ensure that the Annual Report to the Research Higher Degrees Committee on the progress of candidature is returned to the Secretary of the Committee by the due date.

### ***Resolving difficulties***

- 4.17 The head of school must make every effort to resolve any difficulties arising during candidature. If necessary the Academic Dean of Graduate Studies by Research should be approached for assistance in resolution of a problem. If resolution is not possible, the head of school must arrange for a written submission to be made to the Committee for formal consideration.
- 4.18 If the supervisory relationship breaks down, the head of school must make other arrangements which are satisfactory to the candidate and the Research Higher Degrees Committee.

## **5. Responsibilities of Supervisors**

### **General**

- 5.1 The supervisor should be thoroughly familiar with the Rules of Higher Degrees by Research and Procedures of Higher Degrees by Research, the Code of Conduct in Research, and this Code of Conduct in Supervision.
- 5.2 The general responsibilities described in this section apply to the supervisor, the research supervisor and associate supervisor if any. The supervisor is responsible for the supervision process in all cases.

### ***New candidates***

- 5.3 The supervisor should be acquainted with the candidate's academic background and should inform the candidate and the head of school at an early stage if coursework or other studies are necessary.
- 5.4 The supervisor should advise the candidate on the tasks, processes and standards expected in research higher degree projects in the particular field. This is a useful framework for helping the candidate develop and refine a topic which can be researched and written up within the required time-frame. The supervisor should advise the candidate of relevant aspects of the Rules of Higher Degrees by Research and Procedures of Higher Degrees by Research and other information as appropriate.
- 5.5 The supervisor should be aware of University policies on intellectual property. At the beginning of the candidature, the supervisor should discuss arrangements regarding intellectual property including patents and authorship of any publications arising from the candidate's work. The supervisor should be aware of any special conditions which apply to a candidate, such as restrictions on disclosure of research outcomes associated with sponsorship of the candidature or the research project.

### ***Planning the research***

- 5.6 Once the research topic is refined to the satisfaction of the candidate and the supervisor, the supervisor should assist the candidate to formulate a framework for the research, with intermediate objectives and time estimates for completion of various phases. Having such a framework, which may be modified as the research proceeds, gives a sense of focus, helps the candidate and the supervisor to check progress, and is often a useful early orientation to writing the thesis. The framework should be used to guide the candidate, but should not constrain the development of the research.
- 5.7 It is the supervisor's responsibility to obtain approval from the appropriate ethics committee for any project involving human or animal subjects.

### ***During candidature***

- 5.8 The supervisor should ensure that discussions with the candidate are held at appropriate and frequent intervals throughout the candidature. The supervisor should establish a pattern for these meetings at an early stage in the candidature, explain their purpose, and structure them in a way which encourages the exchange of ideas.

- 5.9 The supervisor is expected to read any written work thoroughly in advance of meetings, and to provide regular feedback on the candidate's work. However a supervisor is not obliged to read an excessive number of drafts of the same document. Any criticism should be given in a constructive, supportive and sensitive fashion.
- 5.10 The supervisor should inform the candidate as soon as possible of any expected absences, and discuss alternative arrangements to be made for supervision during absences.
- 5.11 The supervisor should arrange a major review of the project at least once a year so that the candidate's work can be assessed within the overall context of the research program, the standard expected, and the time-frame for completion. Both supervisor and candidate should then be in a position to report on progress when required and to judge when some intervention may be desirable. The supervisor should provide guidance in developing solutions to problems as they are identified.

### ***The annual review***

- 5.12 It is the responsibility of the supervisor to discuss the report on the progress of the candidate with the candidate. Where applicable the report should include a statement of coursework and other requirements completed.

### ***The Thesis***

- 5.13 The supervisor should explain the procedures for the submission and examination of the thesis to the candidate, including the requirement for an abstract eight weeks before submission. Attention should be drawn to Rules of Higher Degrees by Research 15.2, under which the candidate may request that specified people be not appointed as examiners.
- 5.14 The supervisor should provide guidance on the content and length of the thesis before the candidate embarks on writing it. He or she should comment critically on content and length of the completed thesis before it is submitted for examination. The need for care in proof-reading the thesis should be impressed on the candidate.
- 5.15 In the case of candidates who are presenting a body of previously published work for a PhD the supervisor should advise on the integration of the material into a coherent thesis reviewing the collected work.

### ***Resolving difficulties***

- 5.16 The supervisor should consider the personal needs of a candidate. Progress may be impeded by personal crises, to which the supervisor should be responsive. The supervisor should, when appropriate, direct the candidate to support services within the University and advise the candidate on procedures for applying for suspensions or extensions of candidature and scholarships.
- 5.17 If the supervisory relationship breaks down, the supervisor must advise the head of school.